

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference Case 3135	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/SE00/01173	International filing date (day month year) 07.06.2000	Priority date (day month year) 10.06.1999
International Patent Classification (IPC) or national classification and IPC B60C 5/16, B60C 15/02		
Applicant Trelleborg Industri AB et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 29.12.2000	Date of completion of this report 10.09.2001
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-100 42 STOCKHOLM Facsimile No. 08-667 72 88	Authorized officer Göran Carlström/EK Telephone No. 08-782 25 00

Form PCT/IPEA/409 (cover sheet) (January 1998)

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.

PCT/SE00/01173

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
 pages 1-5 , as originally filed
 pages _____ , filed with the demand
 pages _____ , filed with the letter of _____
- ☒ the claims:
 pages _____ , as originally filed
 pages _____ , as amended (together with any statement) under article 19
 pages _____ , filed with the demand
 pages 6-7 , filed with the letter of 23.05.2001
- ☒ the drawings:
 pages 1 , as originally filed
 pages _____ , filed with the demand
 pages _____ , filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____ , as originally filed
 pages _____ , filed with the demand
 pages _____ , filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language English which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☒ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheet/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2 (c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.

PCT/SE00/01173

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-8.</u>	YES
	Claims	_____	NO
Inventive step (IS)	Claims	<u>1-8</u>	YES
	Claims	_____	NO
Industrial applicability (IA)	Claims	<u>1-8</u>	YES
	Claims	_____	NO

2. Citations and explanations (Rule 70.7)

The claimed invention is not considered to be anticipated by the patent documents cited. None of these documents reveals the tyre device described in the claims.

The invention according to claims 1- 8 is therefore considered to be novel, to involve an inventive step and to be industrially applicable.

FR 2669276 A1 (CYCLES FARRAROLI-CH)

CH 336278 A (GEORG FISCHER AKTIENGESELLSCHAFT)

WO 9821056 A1 (PACEMARK, INC)

CLAIMS

1 An arrangement relating to pneumatic tubeless tires that are fitted with
a tire bead (12) in sealing abutment with a rim seat (13) inwardly from a rim edge
5 (14) on each side of an undivided rim (11), characterised in that the tire is provided
with an internal lip seal (16), which is made of rubber or some like elastic material
and which extends along the rim seat (13) inwardly from the tire bead (12); in that
the outer part of the internal seal (16) proximal to the rim edge (14) is fastened to the
tire bead (12) at a distance from its end; in that the inner edge of the lip seal (16)
10 rests on the rim (11); in that the inner part of the internal seal (16) proximal to the
centre of the rim (11) has a circumference which is slightly smaller than the circum-
ference of the rim (11) at this location; and in that the seal (16) is adapted to seal at
least in the region of the abutment of the tire bead (12) with the rim seat (13)
through the influence of the pneumatic pressure in the tire (10).

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2 An arrangement according to Claim 1, characterised in that the outer
part of the lip seal (16) is glued to the tire rim (2).

3 An arrangement according to Claim 1 or 2, characterised in that the
20 lip seal (16) comprises a material of such softness as to cause the seal to lie in sealing
abutment with its underlying supporting surface essentially along the whole of the
extension of the seal.

4 An arrangement according to Claim 1 or 2, characterised in that the
25 lip seal (16) is comprised of a relatively rigid elastic material and is adapted to lie in
sealing abutment with the rim (11) at least at the inward part of said seal.

5 An arrangement according to any one of Claims 1-4, characterised in
that the lip seal (16) is fastened with the edge of its outer part spaced from the end of
30 the tire bead (12) by at least 50-70 mm.

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6. An arrangement according to any one of Claims 1-5, characterised in that the lip seal (16) has a skirt-like configuration with the inner part of said seal resting loosely on the rim (11).

5 7. An arrangement according to any one of Claims 1-6, characterised in that the inner edge of the lip seal (16) has the form of a so-called selvage.

8. The use of the arrangement according to Claims 1-7 in low profile tires, preferably low profile tires intended for forestry service.

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9902170-1 10 June 1999 (10.06.1999) SE(71) Applicant (for all designated States except US):
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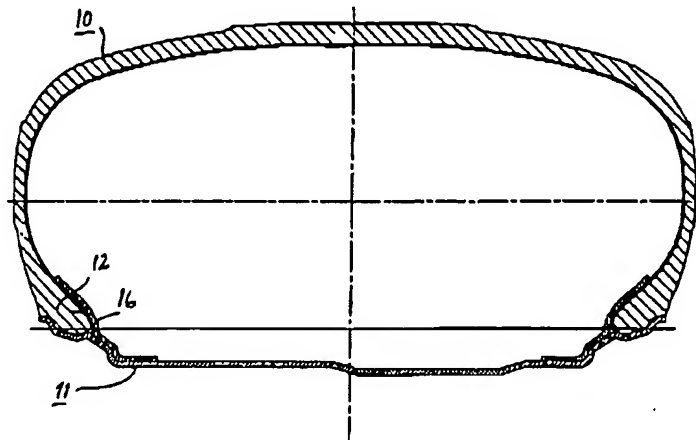
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[SE/SE]; Brogatan 13, S-211 44 Malmö (SE).(74) Agent: BJERNDELL, Per; Trelleborg AB, P.O. Box 153,
S-231 22 Trelleborg (SE).(81) Designated States (national): AE, AL, AM, AT, AU, AZ,
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For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: TIRE DEVICE



(57) Abstract: An arrangement relating to pneumatic tubeless tires which are fitted with a tire bead (12) in sealing abutment with a rim seat (13) inwardly from a rim edge (14) on each side of an undivided rim (11). The tire is provided with an internal seal (16) which is made of rubber or some like elastic material and which extends inwardly from the tire bead (12) along the rim seat (13). The outer part of the internal lip seal (16) that lies proximal to the rim edge (14) is fastened to the tire bead (12) at a distance from its end. The inner part of the internal seal (16) that lies proximal to the centre of the rim (11) has a circumference that is slightly smaller than the circumference of the rim (11) at this location. The seal (16) is adapted to seal at least around the region in which the tire bead (12) is in abutment with the rim seat (13) through the influence of the pneumatic pressure in the tire (10).

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INTERNATIONAL SEARCH REPORT
Information on patent family members

08/05/00

International application No.

PCT/SE 00/01173

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
FR 2669276 A1	22/05/92	NONE	
CH 336278 A	31/03/59	DE 1020882 B	00/00/00
WO 9821056 A1	22/05/98	AU 5255998 A	03/06/98

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Applicant(s): NILSSON, Tomas

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Invention: TIRE DEVICE

I hereby certify that the following correspondence:

International Application Publication No. WO 00/76788 A1 including Search Report

(Identify type of correspondence)

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